

WO 2005/089826

PCT/KR2005/000801

Sequence Listing

<110> Seoul National University Industry Foundation

<120> Bone Graft And Scaffolding Materials Immobilized With
Osteogenesis Enhancing Peptides On The Surface

<130> PP-B0100

<150> KR10-2004-0019010

<151> 2004-03-19

<160> 69

<170> KopatentIn 1.71

<210> 1

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> RGD containing peptide

<400> 1

Cys Gly Gly Arg Gly Asp Ser

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<210> 2

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> RGD containing peptide

<400> 2

Val Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys

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Sequence Listing

<210> 3
<211> 17
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<213> Artificial Sequence

<220>
<223> partial peptide of BMP-2

<400> 3
Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg His
1 5 10 15

Pro

<210> 4
<211> 14
<212> PRT
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<220>
<223> partial peptide of BMP-4

<400> 4
Cys Ser Pro Lys His His Pro Gln Arg Ser Arg Lys Lys Asn
1 5 10

<210> 5
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-6

Sequence Listing

<400> 5

Cys Ser Ser Arg Lys Lys Asn Lys Asn Cys Arg Arg His
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<210> 6

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of BMP-2

<400> 6

Ser Asp Val Gly Trp Asn Asp Trp Ile Val Ala Pro Pro Gly Tyr His
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Ala

<210> 7

<211> 25

<212> PRT

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<220>

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<400> 7

Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile
1 5 10 15

Val Gln Thr Leu Val Asn Ser Val Asn
20 25

Sequence Listing

<210> 8
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-2

<400> 8
Lys Ile Pro Lys Ala Cys Cys Val Pro Thr Glu Leu Ser Ala Ile Ser
1 5 10 15

Met Leu Tyr Leu
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<210> 9
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 9
Ser Met Leu Tyr Leu Asp Glu Asn Glu Lys Val Val Leu Lys Asn Tyr
1 5 10 15

Gln Asp

<210> 10
<211> 20
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Sequence Listing

<220>

<223> partial peptide BMP-2

<400> 10

Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg

1

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10

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His Pro Leu Tyr

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<210> 11

<211> 20

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Met Leu Tyr Leu

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<210> 12

<211> 21

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<213> Artificial Sequence

<220>

<223> partial peptide of BMP-7

<400> 12

Ser Met Leu Tyr Leu Asp Glu Asn Glu Lys Val Val Leu Lys Asn Tyr

Sequence Listing

1 5 10 15

Gln Asp Met Val Val
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<210> 13
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-4

<400> 13
Ser Ser Ile Pro Lys Ala Cys Cys Val Pro Thr Glu Leu Ser Ala Ile
1 5 10 15

Ser Met Leu Tyr Leu
20

<210> 14
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of bone sialoprptein

<400> 14
Pro Lys His His Ser Gln Arg Ala Arg Lys Lys Asn Lys Asn Cys Arg
1 5 10 15

Arg His Ser Leu Tyr
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Sequence Listing

<210> 15
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<220>
<223> partial peptide of BMP-4

<400> 15
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1 5 10 15

Ser Met Leu Tyr Leu
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<210> 16
<211> 21
<212> PRT
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<220>
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<400> 16
Ser Met Leu Tyr Leu Asp Glu Tyr Asp Lys Val Val Leu Lys Asn Tyr
1 5 10 15

Gln Glu Met Val Val
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<210> 17
<211> 20
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<213> Artificial Sequence

<220>

Sequence Listing

<223> partial peptide of BMP-6

<400> 17

Tyr Val Pro Lys Pro Cys Cys Ala Pro Thr Lys Leu Asn Ala Ile Ser
1 5 10 15

Val Leu Tyr Phe
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<210> 18

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of BMP-6

<400> 18

Val Ser Ser Ala Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala Cys
1 5 10 15

Arg Lys His Glu Leu Tyr
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<210> 19

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of BMP-6

<400> 19

Tyr Val Pro Lys Pro Cys Cys Ala Pro Thr Lys Leu Asn Ala Ile Ser
1 5 10 15

Sequence Listing

Val Leu Tyr Phe
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<210> 20
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-6

<400> 20
Ser Val Leu Tyr Phe Asp Asp Asn Ser Asn Val Ile Leu Lys Lys Tyr
1 5 10 15

Arg Asn Met Val Val Arg Ala Cys
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<210> 21
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Partial sequence of BMP-7

<400> 21
Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln Leu Asn Ala Ile Ser
1 5 10 15

Val Leu Tyr Phe
20

<210> 22

Sequence Listing

<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Partial peptide of BMP-7

<400> 22
Glu Asn Ser Ser Ser Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu
1 5 10 15

Tyr Val Ser Phe Arg
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<210> 23
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-7

<400> 23
Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln Leu Asn Ala Ile Ser
1 5 10 15

Val Leu Tyr Phe
20

<210> 24
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BMP-7

Sequence Listing

<400> 24

Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile Leu Lys Lys Tyr
1 5 10 15

Arg Asn Met

<210> 25

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 25

Glu Glu Glu Gly Glu Glu Glu Glu
1 5

<210> 26

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 26

Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu
1 5 10

<210> 27

<211> 18

Sequence Listing

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 27

Tyr Glu Thr Tyr Asp Glu Asn Asn Gly Glu Pro Arg Gly Asp Thr Tyr
1 5 10 15

Arg Ile

<210> 28

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 28

Glu Glu Gly Glu Glu Glu
1 5

<210> 29

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 29

Glu Glu Glu Glu Glu Glu Glu

Sequence Listing

1 5

<210> 30

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 30

Tyr Glu Ile Tyr Glu Ser Glu Asn Gly Glu Pro Arg Gly Asp Asn Tyr

1 5 10 15

Arg

<210> 31

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 31

Lys Asn Leu His Arg Arg Val Lys Ile

1 5

<210> 32

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

Sequence Listing

<223> partial peptide of bone sialoprotein

<400> 32

Asp Ser Ser Glu Glu Asn Gly Asp Asp Ser Ser Glu Glu Glu Glu Glu
1 5 10 15

Glu Glu Glu Thr Ser Asn Glu Gly Glu Asn
20 25

<210> 33

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 33

Asp Glu Glu Glu Glu Glu Glu Glu Glu Gly Asn Glu Asn Glu Glu Ser
1 5 10 15

Glu Ala Glu Val Asp
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<210> 34

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of bone sialoprotein

<400> 34

Ser Glu Asn Gly Glu Pro Arg Gly Asp Asn Tyr
1 5 10

Sequence Listing

<210> 35
<211> 9
<212> PRT
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<220>
<223> partial peptide of TGF

<400> 35
Thr Gly Arg Arg Gly Asp Leu Ala Thr
1 5

<210> 36
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of TGF

<400> 36
Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys
1 5 10 15

Cys Val Arg Gln Leu
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<210> 37
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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Sequence Listing

<400> 37

Leu Tyr Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val

1 5 10 15

Pro Gln Ala

<210> 38

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of PDGF

<400> 38

Cys Glu Thr Val Ala Ala Ala Arg Pro Val Thr Arg Ser Pro Gly Gly

1 5 10 15

Ser Gln Glu Gln Arg

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<210> 39

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of PDGF

<400> 39

Ala Lys Thr Pro Gln Thr Arg Val Thr Ile Arg Thr Val Arg Val Arg

1 5 10 15

Sequence Listing

Arg Pro Pro Lys
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<210> 40
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of AFGF

<400> 40
Tyr Lys Lys Pro Lys Leu Leu Tyr Cys
1 5

<210> 41
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of AFGF

<400> 41
Ile Ser Lys Lys His Ala Glu Lys
1 5

<210> 42
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of BFGF

Sequence Listing

<400> 42

Gly His Phe Lys Asp Pro Lys Arg Leu Tyr Cys Lys

1 5 10

<210> 43

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of BFGF

<400> 43

Pro Asp Gly Arg Val Asp

1 5

<210> 44

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of BFGF

<400> 44

Lys Glu Asp Gly Arg Leu Leu

1 5

<210> 45

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

Sequence Listing

<223> partial peptide of BFGF

<400> 45

Tyr Arg Ser Arg Lys Tyr

1 5

<210> 46

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of dentin sialoprotein

<400> 46

Glu Asp Glu Gly Ser Gly Asp Asp Glu Asp Glu Glu Ala Gly Asn Gly

1 5 10 15

Lys Asp Ser Ser Asn

20

<210> 47

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of dentin sialoprotein

<400> 47

Asp Asp Ala Asn Ser Glu Ser Asp Asn Asn Ser Ser Ser Arg Gly Asp

1 5 10 15

Ala Ser Tyr Asn

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Sequence Listing

<210> 48
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of dentin sialoprotein

<400> 48
Asp Ser Asp Ser Ser Asp Ser Ser Asn Ser Ser Asp Ser Ser Asp Ser
1 5 10 15
Ser Asp Ser Asp Ser Ser Asp
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<210> 49
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of Heparin binding EGF like GF

<400> 49
Asp Leu Gln Glu Ala Asp Leu Ala Leu Leu Arg Val Thr Leu Ser Ser
1 5 10 15
Lys Pro Gln Ala Leu Ala
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<210> 50
<211> 20
<212> PRT
<213> Artificial Sequence

Sequence Listing

<220>

<223> partial peptide of Heparin binding EGF like GF

<400> 50

Ala Thr Pro Asn Lys Glu Glu His Gly Lys Arg Lys Lys Lys Gly Lys
1 5 10 15

Gly Leu Gly Lys
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<210> 51

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of Heparin binding EGF like GF

<400> 51

Lys Arg Asp Pro Cys Leu Arg Lys Tyr Lys Asp Phe Cys
1 5 10

<210> 52

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of Heparin binding EGF like GF

<400> 52

Cys Lys Tyr Val Lys Glu Leu Arg Ala Pro Ser Cys Ile Cys His Pro
1 5 10 15

Sequence Listing

Gly Tyr His Gly

20

<210> 53

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 53

Pro Gln Tyr Asn Tyr Gln Thr Leu Val Pro Glu Asn Glu Ala Ala Gly

1

5

10

15

Thr Ala Val Leu Arg Val Val Ala Gln

20

25

<210> 54

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 54

Asp Pro Asp Ala Gly Glu Ala Gly Arg Leu Val Tyr Ser Leu Ala Ala

1

5

10

15

Leu Met Asn Ser Arg

20

<210> 55

<211> 29

Sequence Listing

<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 55
Ser Leu Glu Leu Phe Ser Ile Asp Pro Gln Ser Gly Leu Ile Arg Thr
1 5 10 15
Ala Ala Ala Leu Asp Arg Glu Ser Met Glu Arg His Tyr
20 25

<210> 56
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 56
Leu Arg Val Thr Ala Gln Asp His Gly Ser Pro Arg Leu Ser Ala Thr
1 5 10 15
Thr Met Val Ala Val Thr Val
20

<210> 57
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

Sequence Listing

<400> 57

Glu Gln Ala Gln Tyr Arg Glu Thr Leu Arg Glu Asn Val Glu Glu Gly
1 5 10 15

Tyr Pro Ile Leu Gln Leu Arg Ala Thr Asp Gly Asp Ala Pro Pro Asn
20 25 30

Ala Asn Leu Arg Tyr Arg Phe Val Gly Pro Pro Ala Ala Arg Ala Ala
35 40 45

Ala Ala Ala Ala Phe Glu Ile Asp Pro Arg Ser Gly Leu Ile Ser Thr
50 55 60

Ser Gly Arg Val Asp Arg Glu His Met Glu Ser Tyr Glu Leu Val Val
65 70 75 80

Glu Ala Ser Asp Gln Gly Gln Glu Pro Gly Pro Arg Ser Ala Thr Val
85 90 95

Arg Val His Ile Thr Val Leu Asp Glu Asn Asp Asn Ala Pro Gln Phe
100 105 110

<210> 58

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 58

Ser Glu Lys Arg Tyr Val Ala Gln Val Arg Glu Asp Val Arg Pro His
1 5 10 15

Thr Val Val Leu Arg Val Thr Ala Thr Asp Arg Asp Lys Asp Ala Asn

Sequence Listing

	20	25	30
Gly Leu Val His Tyr Asn Ile Ile Ser Gly Asn Ser Arg Gly His Phe			
35	40	45	
Ala Ile Asp Ser Leu Thr Gly Glu Ile Gln Val Val Ala Pro Leu Asp			
50	55	60	
Phe Glu Ala Glu Arg Glu Tyr Ala Leu Arg Ile Arg Ala Gln Asp Ala			
65	70	75	80
Gly Arg Pro Pro Leu Ser Asn Asn Thr Gly Leu Ala Ser Ile Gln Val			
85	90	95	
Val Asp Ile Asn Asp His Ile Pro Ile Phe			
100	105		

<210> 59

<211> 59

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 59

Asp Asp Asn Val Cys Leu Arg Glu Pro Cys Glu Asn Tyr Met Lys Cys
1 5 10 15

Val Ser Val Leu Arg Phe Asp Ser Ser Ala Pro Phe Leu Ala Ser Ala
20 25 30

Ser Thr Leu Phe Arg Pro Ile Gln Pro Ile Ala Gly Leu Arg Cys Arg
35 40 45

Cys Pro Pro Gly Phe Thr Gly Asp Phe Cys Glu
50 55

Sequence Listing

<210> 60
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 60
 Glu Leu Asp Leu Cys Tyr Ser Asn Pro Cys Arg Asn Gly Gly Ala Cys
 1 5 10 15

Ala Arg Arg Glu Gly Gly Tyr Thr Cys Val Cys Arg Pro Arg Phe Thr
 20 25 30

Gly Glu Asp Cys Glu
 35

<210> 61
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 61
 Glu Ala Gly Arg Cys Val Pro Gly Val Cys Arg Asn Gly Gly Thr Cys
 1 5 10 15

Thr Asp Ala Pro Asn Gly Gly Phe Arg Cys Gln Cys Pro Ala Gly Gly
 20 25 30

Ala Phe Glu Gly Pro Arg Cys Glu
 35 40

Sequence Listing

<210> 62
 <211> 205
 <212> PRT
 <213> Artificial Sequence

<220>

<223> , partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 62

Val Ala Ala Arg Ser Phe Pro Pro Ser Ser Phe Val Met Phe Arg Gly
 1 5 10 15

Leu Arg Gln Arg Phe His Leu Thr Leu Ser Leu Ser Phe Ala Thr Val
 20 25 30

Gln Gln Ser Gly Leu Leu Phe Tyr Asn Gly Arg Leu Asn Glu Lys His
 35 40 45

Asp Phe Leu Ala Leu Glu Leu Val Ala Gly Gln Val Arg Leu Thr Tyr
 50 55 60

Ser Thr Gly Glu Ser Asn Thr Val Val Ser Pro Thr Val Pro Gly Gly
 65 70 75 80

Leu Ser Asp Gly Gln Trp His Thr Val His Leu Arg Tyr Tyr Asn Lys
 85 90 95

Pro Arg Thr Asp Ala Leu Gly Gly Ala Gln Gly Pro Ser Lys Asp Lys
 100 105 110

Val Ala Val Leu Ser Val Asp Asp Cys Asp Val Ala Val Ala Leu Gln
 115 120 125

Phe Gly Ala Glu Ile Gly Asn Tyr Ser Cys Ala Ala Ala Gly Val Gln
 130 135 140

Thr Ser Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly
 145 150 155 160

Sequence Listing

Gly Val Pro Asn Leu Pro Glu Asn Phe Pro Val Ser His Lys Asp Phe
 165 170 175

Ile Gly Cys Met Arg Asp Leu His Ile Asp Gly Arg Arg Val Asp Met
 180 185 190

Ala Ala Phe Val Ala Asn Asn Gly Thr Met Ala Gly Cys
 195 200 205

<210> 63
 <211> 181
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 63
 Pro His His Phe Arg Gly Asn Gly Thr Leu Ser Trp Asn Phe Gly Ser
 1 5 10 15

Asp Met Ala Val Ser Val Pro Trp Tyr Leu Gly Leu Ala Phe Arg Thr
 20 25 30

Arg Ala Thr Gln Gly Val Leu Met Gln Val Gln Ala Gly Pro His Ser
 35 40 45

Thr Leu Leu Cys Gln Leu Asp Arg Gly Leu Leu Ser Val Thr Val Thr
 50 55 60

Arg Gly Ser Gly Arg Ala Ser His Leu Leu Leu Asp Gln Val Thr Val
 65 70 75 80

Ser Asp Gly Arg Trp His Asp Leu Arg Leu Glu Leu Gln Glu Glu Pro
 85 90 95

Gly Gly Arg Arg Gly His His Val Leu Met Val Ser Leu Asp Phe Ser

Sequence Listing

100	105	110
Leu Phe Gln Asp Thr Met Ala Val Gly Ser Glu Leu Gln Gly Leu Lys		
115	120	125
Val Lys Gln Leu His Val Gly Gly Leu Pro Pro Gly Ser Ala Glu Glu		
130	135	140
Ala Pro Gln Gly Leu Val Gly Cys Ile Gln Gly Val Trp Leu Gly Ser		
145	150	155
		160
Thr Pro Ser Gly Ser Pro Ala Leu Leu Pro Pro Ser His Arg Val Asn		
165	170	175
Ala Glu Pro Gly Cys		
180		

<210> 64
 <211> 36
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of cadherin EGF LAG seven-pass G-type receptor3

<400> 64
 Cys Pro Cys Arg Pro Gly Ala Leu Gly Arg Gln Cys Asn Ser Cys Asp
 1 5 10 15
 Ser Pro Phe Ala Glu Val Thr Ala Ser Gly Cys Arg Val Leu Tyr Asp
 20 25 30
 Ala Cys Pro Lys
 35

<210> 65
 <211> 106

Sequence Listing

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of OB-cadherin

<400> 65

Gly Trp Val Trp Asn Gln Phe Phe Val Ile Glu Glu Tyr Thr Gly Pro
1 5 10 15

Asp Pro Val Leu Val Gly Arg Leu His Ser Asp Ile Asp Ser Gly Asp
20 25 30

Gly Asn Ile Lys Tyr Ile Leu Ser Gly Glu Gly Ala Gly Thr Ile Phe
35 40 45

Val Ile Asp Asp Lys Ser Gly Asn Ile His Ala Thr Lys Thr Leu Asp
50 55 60

Arg Glu Glu Arg Ala Gln Tyr Thr Leu Met Ala Gln Ala Val Asp Arg
65 70 75 80

Asp Thr Asn Arg Pro Leu Glu Pro Pro Ser Glu Phe Ile Val Lys Val
85 90 95

Gln Asp Ile Asn Asp Asn Pro Pro Glu Phe
100 105

<210> 66

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> partial peptide of OB-cadherin

<400> 66

Sequence Listing

Leu His Glu Thr Tyr His Ala Asn Val Pro Glu Arg Ser Asn Val Gly
 1 5 10 15

Thr Ser Val Ile Gln Val Thr Ala Ser Asp Ala Asp Asp Pro Thr Tyr
 20 25 30

Gly Asn Ser Ala Lys Leu Val Tyr Ser Ile Leu Glu Gly Gln Pro Tyr
 35 40 45

Phe Ser Val Glu Ala Gln Thr Gly Ile Ile Arg Thr Ala Leu Pro Asn
 50 55 60

Met Asp Arg Glu Ala Lys Glu Glu Tyr His Val Val Ile Gln Ala Lys
 65 70 75 80

Asp Met Gly Gly His Met Gly Gly Leu Ser Gly Thr Thr Lys Val Thr
 85 90 95

Ile Thr Leu Thr Asp Val Asn Asp Asn Pro Pro Lys Phe
 100 105

<210> 67
 <211> 115
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of OB-cadherin

<400> 67
 Pro Gln Arg Leu Tyr Gln Met Ser Val Ser Glu Ala Ala Val Pro Gly
 1 5 10 15

Glu Glu Val Gly Arg Val Lys Ala Lys Asp Pro Asp Ile Gly Glu Asn
 20 25 30

Gly Leu Val Thr Tyr Asn Ile Val Asp Gly Asp Gly Met Glu Ser Phe
 35 40 45

Sequence Listing

Glu Ile Thr Thr Asp Tyr Glu Thr Gln Glu Gly Val Ile Lys Leu Lys
 50 55 60

Lys Pro Val Asp Phe Glu Thr Glu Arg Ala Tyr Ser Leu Lys Val Glu
 65 70 75 80

Ala Ala Asn Val His Ile Asp Pro Lys Phe Ile Ser Asn Gly Pro Phe
 85 90 95

Lys Asp Thr Val Thr Val Lys Ile Ser Val Glu Asp Ala Asp Glu Pro
 100 105 110

Pro Met Phe
 115

<210> 68
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of OB-cadherin

<400> 68
 Pro Met Phe Leu Ala Pro Ser Tyr Ile His Glu Val Gln Glu Asn Ala
 1 5 10 15

Ala Ala Gly Thr Val Val Gly Arg Val His Ala Lys Asp Pro Asp Ala
 20 25 30

Ala Asn Ser Pro Ile Arg Tyr Ser Ile Asp Arg His Thr Asp Leu Asp
 35 40 45

Arg Phe Phe Thr Ile Asn Pro Glu Asp Gly Phe Ile Lys Thr Thr Lys
 50 55 60

Pro Leu Asp Arg Glu Glu Thr Ala Trp Leu Asn Ile Thr Val Phe Ala

Sequence Listing

65	70	75	80
Ala Glu Ile His Asn Arg His Gln Glu Ala Gln Val Pro Val Ala Ile			
	85	90	95
Arg Val Leu Asp Val Asn Asp Asn Ala Pro			
	100	105	

<210> 69
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> partial peptide of OB-cadherin

<400>	69
Lys Phe Ala Ala Pro Tyr Glu Gly Phe Ile Cys Glu Ser Asp Gln Thr	
1	5 10 15

Lys Pro Leu Ser Asn Gln Pro Ile Val Thr Ile Ser Ala Asp Asp Lys
20 25 30

Asp Asp Thr Ala Asn Gly Pro Arg Phe Ile Phe Ser Leu Pro Pro Glu
35 40 45

Ile Ile His Asn Pro Asn Phe Thr Val Arg Asp Asn Arg Asp Asn Thr
50 55 60

Ala Gly Val Tyr Ala Arg Arg Gly Gly Phe Ser Arg Gln Lys Gln Asp
65 70 75 80

Leu Tyr Leu Leu Pro Ile Val Ile Ser Asp Gly Gly Ile Pro Pro Met
85 90 95

Ser Ser Thr Asn Thr Leu Thr Ile Lys Val Cys Gly Cys Asp Val Asn
100 105 110

Sequence Listing

Gly Ala Leu Leu Ser Cys Asn Ala Glu Ala Tyr Ile Leu Asn
115 120 125